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◀ The Gnome desktop has a similar layout to Apple's OS X interface with menu bar at the top



◀ The KDE desktop has the same chameleon as the Gnome desktop, but it has a menu bar at the bottom, just like Windows

and LDAP, NIS or Samba to verify users. Experienced Linux administrators will know what these terms mean and which to choose. But for first-time users, it might have been nice to explain that `/etc/passwd` means you can log in without needing an authentication server, for instance. Most home Linux users will want to use the `/etc/passwd` method.

You must set up at least one normal user. By default, if this is the only one, the PC boots up and logs into this account without asking for a username and password. Therefore, it's a good idea to unclick the auto login tick box when you set up the user, creating another level of security.

A TALE OF TWO DESKTOPS

After logging in for the first time, a green, bug-eyed chameleon stares back from the KDE desktop background and the speaker should play some swishy musical sounds, which means that the installation process has correctly picked up the onboard sound card. Sound has been a sticking point for Linux in the past, because of the vast range of devices with which it must cope, so hearing this was welcome.

On our notebook a pop-up appeared, explaining that the monitor, powered by the built-in SiS650 adaptor, had not reported its X and Y dimensions and suggested setting them manually. The screen was running at 1,024x768, and declining to change things didn't seem to cause any problems. Accepting the option, however, gives a list of standard dimensions and numbers of colours. There's also the opportunity to test new configurations before saving them. If you have a non-standard monitor, you can refer back to the tip we gave you in *Linux Expert*, *Shopper* February 2006 about using modelines to set the correct resolution manually.

The range of computing tasks carried out by most home users is likely to be narrow. Most popular is probably web surfing. Because of this, the first thing to check after an installation is that the web browser can connect to the outside world. This confirms that the computer has picked up a DHCP address, and that it can find its way to your ISP. Attempting this with the now-standard Firefox browser failed immediately.

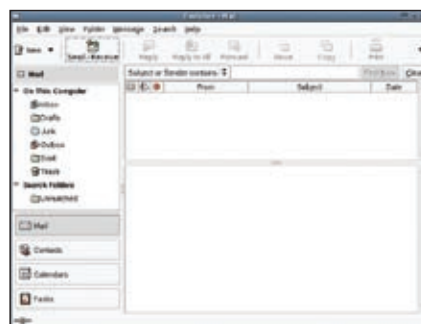
Opening a terminal and entering `ifconfig` showed that, unfortunately, though the

installation procedure had configured the WiFi card, it had not done so for the Ethernet card. A trip to YaST was called for. Selecting the card, pressing edit and making sure it was set up to receive an address via DHCP was enough to ensure it subsequently obtained an address from our ADSL router automatically. Running Firefox now brought up the Novell home page, proving it had a route out to the internet.

The next step was to test the email capabilities. KMail is the default email application on the KDE desktop, and Evolution plays the same role in Gnome. Of these, Evolution feels more like Outlook Express but Kmail will also be quite familiar to Windows users.

For spam-detection duties, the default installation of SUSE Linux 10 includes an application called GMX. This gives the option of automatically scanning for suspicious messages and deleting them, moving them to a folder for later inspection, or marking them as read in the inbox. The distribution also comes with advanced anti-spam applications, such as SpamAssassin, which, if installed, are powerful tools.

There's a frustrating surprise lurking behind the choice of desktop you made at installation time. If you installed KDE, it won't have silently installed Gnome too, so you don't get the latter as an option on the login screen, and vice versa. You would have had to delve into the list of packages that YaST installed and add the Gnome group to the list. Surely there should be an option to install both if there's enough disk space? The Linux-curious user will want to explore both to



▲ Evolution is the default email application in Gnome and feels a lot like Outlook Express

see which they prefer. Luckily, it's not too hard to get a second desktop up and running. After another quick trip into YaST and five minutes of installation time, you can have the KDE login screen display Gnome as a desktop option.

Logging into Gnome presents the chameleon backdrop and a pleasant whooshing noise, but this time the layout of the desktop is very similar to Apple's OS X interface. The menu bar appears at the top of the screen, for example. If you want to use the terminal to control the computer, Gnome will frustrate you. In KDE, the menu bar at the bottom of the screen enables you to start a terminal window directly. One click and you have a command line. In Gnome, you open a terminal by clicking on the Applications menu, going down to the System submenu, clicking on Terminals to open a further submenu, and then selecting from one of four types. This is a lot of work if all you want to do is run a simple `ifconfig` to see if the network interfaces are still up. To be fair, using the option to start a terminal in super-user mode saves you the trouble.

KDE and Gnome are different desktops and have their own ways of doing things. For example, KDE's application start menu has a search box where you can enter a string representing the partial name of the program you want to run. KDE then greys out all the menu options other than those that lead to the programs in question. Gnome lacks this feature.

Lurking beneath your choice of desktop is the SUSE Watcher. This contacts a secure server at Novell at regular intervals and determines whether there are any new system updates to install. These tend to be bug fixes and security patches. You can configure Watcher to download and install them as they become available.

APPLICATIONS AND UTILITIES

Mainstream Linux distributions are packed with applications and utilities. Some, such as a user-friendly compression and archive management facility in the style of WinZip, are beginning to stand out as omissions from Windows, which has a basic compression feature. But beware. Some novice users make the rash decision to install everything, including things they'll never need, just because they have the disk space. Performing a complete system installation will tie up the computer for several hours. Do you really need the TeXmacs structured WYSIWYG scientific text editor, for instance, or the Dbus developer package? Probably not, so it pays to have a good look through YaST's software installation facilities and tick only the applications you want or think you might like to try.

SUSE works out any dependencies such as libraries for you before installation starts, so you should never be left looking at an error message telling you to install some obscure package.

OPEN LETTER

The biggest problem with using Windows XP in anything other than a basic way is that Microsoft expects you to pay for the ability to write a letter or a presentation, set out your household accounts, create a database or draw anything but the most rudimentary of pictures. Microsoft's WordPad is not a word processor any more than Paint is a serious image-manipulation package.

The ability to create documents in a wide range of formats and produce PDF files that you can watermark, protect and distribute safely comes as standard in the bundled OpenOffice

2.0, so SUSE Linux 10 scores significantly over Windows in this respect. It seems increasingly important to ask whether these activities, now taken for granted by pretty much everyone, will ever be free on Windows, so it's worth noting that OpenOffice and the excellent GIMP image processor are also both available for Windows XP. But they don't come bundled.

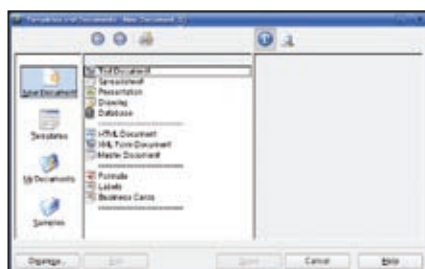
Anyone familiar with Microsoft Office will find little to fox them when using OpenOffice. You can open the individual programs directly from the application start menu or use the OpenOffice launcher application. From here you can run word processing, spreadsheet, presentation, drawing and database applications, as well as create XML and HTML documents, templates, formulas and business cards.

The Office application launch menu also lists programs that enable you to manage addresses and appointments, draw flowcharts, engage in a spot of project management, sort out your finances and manage data stored on your PDA.

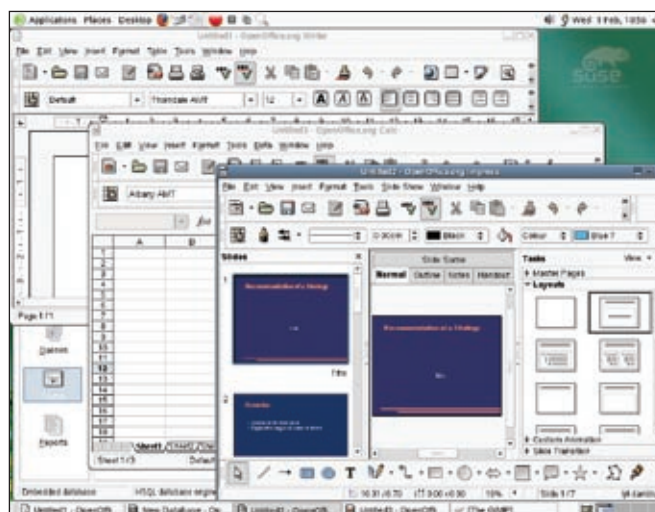
What is puzzling here, and in other parts of the distribution, is that there are multiple applications covering the same tasks. There are, for instance, seven word processors, four spreadsheets and three project management programs. It's one in the eye for Microsoft, but possibly overkill for the rest of humanity.

HEY, MR DJ

There's a lot of multimedia software bundled with this distribution, which should make the bedroom film director or music producer sit up



▲ You can use OpenOffice's launcher to run a variety of office applications and templates



◀ SUSE Linux comes with OpenOffice 2.0, which allows you to create documents in a range of formats and produce watermarked PDFs that you can distribute safely

and take notice immediately. Starting with sound, there is the Hydrogen 32-track drum machine sequencer, which is ideal for laying down beats. This impressive-looking program gives complete control over all aspects of each note via an interface that will be familiar to users of Windows-based music software such as Cakewalk or Cubase.

Many of the other audio applications use the Jack audio server to communicate with each other. This runs as a daemon, but luckily there's a GUI to the Jack server called QJackCtl that gives you control over its operation. This includes a

nifty patch bay facility so you can route MIDI signals and audio to different applications, including the impressive Hammerfall Digital Signal Processor.

To take full advantage of SUSE's music-making ability, as on any platform, you'll need a fast processor, plenty of RAM and a high-end sound card. Our review notebook struggled to open other applications in a reasonable time with Hydrogen running.

And where would your finished hit record be without a video? Windows XP contains the easy-to-use and powerful Windows Movie Maker, but SUSE Linux 10 comes with an array of video capture and editing utilities. MainActor 5.5 and Kino look and feel similar to Movie Maker. These, like the other bundled production and recording tools, need to be studied to get the best from them, but once you're familiar with them the results can be stunning.

Like any other official Linux distribution, SUSE Linux 10 is not able to play commercial DVDs due to licensing restrictions. However, this is far from the big problem it first seems. As we showed you in *Linux Expert*, *Shopper* February 2006, you can legally install the correct DVD codecs so you can watch DVDs without



▲ The distribution is bundled with multimedia software such as the Hydrogen 32-track sequencer

What's next for SUSE?

With the release of SUSE Linux 10, Novell has handed development to an open-source community of developers called openSUSE. In turn, openSUSE is free to create its own distributions as well as one for Novell, and has already done so. What does this mean for Novell's support for Linux? To find out, *Computer Shopper* talked to Brian Green, Novell's UK technical director.

"Initially, openSUSE will be supported by Novell personnel," said Green. "As the openSUSE community grows and develops strong community-based leadership, Novell and the openSUSE community may consider other organisational models. Today the openSUSE project is managed by several experienced Novell employees and Linux developers as well as several talented SUSE Linux testers and users."

The creative freedom handed to openSUSE has already spawned a number of unofficial openSUSE-based distributions. The benefit to

Novell is that innovations from the open-source community will make their way back into the official distribution, as well as appearing in the independent releases. Most noticeable changes in SUSE Linux 10 are efficiency improvements from the SUSE Performance Enhanced Release (SUPER) project, which pre-loads OpenOffice and Firefox when SUSE boots. We asked Green if Novell has any other improvements planned.

"Of course, the answer is yes, and with the introduction of the openSUSE project, we are able to leverage the talents of the community to innovate faster," he said. "Novell has been keen to encourage Linux innovation, and we continue to contribute and invest heavily in open-source software projects. One interesting project that Novell started late last year was Better Desktop."

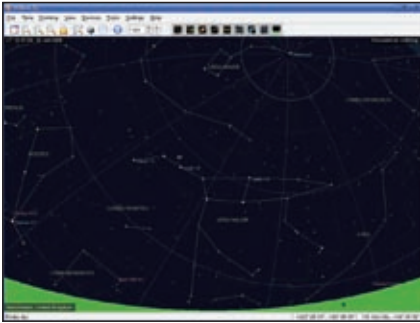
Better Desktop is a project for sharing data with Linux developers. Green said that Novell has been conducting usability tests on

different parts of the KDE and GNOME desktops over the past year. "We created this site to serve as a place where developers can watch videos of these tests. Here you will find over 200 videos of people using Mozilla Firefox, Evolution, OpenOffice, Banshee, F-Spot and other applications. We hope this leads to a better desktop experience for consumers of IT, especially Linux."

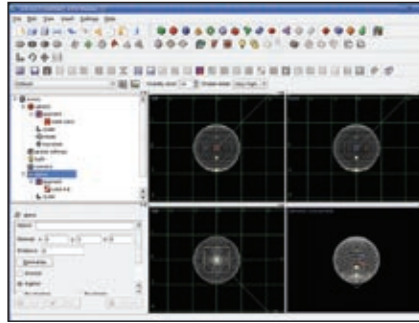
SECURITY PATCHING

Now openSUSE is responsible for SUSE Linux, what does this mean for bug and security patching? Green said, "Novell will continue to respond to security and bug issues in the manner in which it has done in the past".

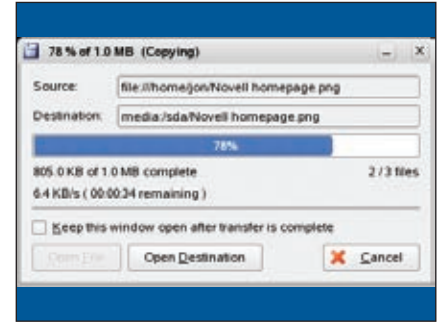
The distribution already contains an incredibly wide range of software, and in this month's *Linux Expert* we've managed to cover only a small portion. Might we one day see SUSE occupy a second DVD? "At the moment it feels complete," said Green.



▲ Kstars is a graphical desktop planetarium that plots the position of stars in the night sky



▲ The excellent POV-Ray modeller can be used to create 3D graphics



▲ When handling USB devices, data transfer rates were slow and sometimes stalled

rebooting into Windows every time you fancy watching a film.

LEARNING CURVE

The Edutainment application launch menu contains multiple pieces of software for astronomy, learning languages and mathematics, as well as touch-typing. There's also a program for exploring the periodic table of elements and even one for designing simulations of complex logic circuits. With all this and far more on offer, you might never again be at a loss for something to do.

With this being Linux, the range of software development tools available is extensive, although not always mainstream. The usual C/C++ compilers that are always found on Linux are accompanied by more obscure languages such as Python, Ruby, Lisp and Fortran. Not only that, but there are also some truly specialised languages such as the parallel processing language Occam.

Rather than leave you to write and compile programs yourself, there are also some nifty integrated project support environments such as Gambas, Anjuta, Eclipse and Kdevelop, which will be oddly familiar to users of Microsoft's Visual C++. The difference here is that there are far more languages to choose from, and Kdevelop has the ability to recognise multiple programming languages in case you suddenly fancy writing programs in Fortran or Occam.

There are some fantastic graphics programs for Linux, and this distribution comes with a good selection. The Blender 3D animation package is included, as is the excellent POV-Ray modeller, which you can use to create 3D graphics. While even experienced users describe Blender's user

interface as difficult, this version of POV-Ray differs from the Windows version in that it has an integrated front-end object modeller. The powerful photo-editing package GIMP 2.2 is available, too.

If you've ever wanted to run more than one Linux system on your hardware, perhaps to simulate a particular network configuration or run a combination of applications or servers, you can use a new kernel extension called Xen. This complex software creates multiple, virtual copies of the hardware and enables you to switch between them. The online help files say that Xen can handle up to 100 virtual machines at once, although this figure looks optimistic. Xen is currently still under development and its capabilities are limited. Sadly, some video drivers, notably nVidia and ATI, do not work as expected and many WIFI chipsets are currently unsupported.

That said, SUSE Linux 10 is a device-friendly distribution and supports lots of hardware. It comes with download and synchronisation software for a wide range of digital cameras, and a respectable Bluetooth capability so you can synchronise your PDA or mobile phone. There are also applications specifically written for managing Palm Pilot and Psion PDAs, as well as programs that are more generally useful, such as Kitchensync for general data transfer.

BAD CONNECTIONS

On the subject of external devices, part of the review process looked at how the system handled USB devices such as a LeStick MP3 player, which we use to ferry data between computers. Opening My Computer on the desktop opens Konqueror, the combined system

explorer and web browser. This shows the storage devices that are currently attached.

Linux recognised the LeStick first time. Data transfer was disappointing, though. Dragging files to the device subsequently gave a progress window, which included a running indication of transfer rate. Speeds were as low as 8KB/s. Sometimes data transfer even stalled completely. This might be a driver issue, as the review notebook previously had Windows XP installed and transferred files much faster. There were other problems, too. SUSE completely ignored a pair of Plantronic USB headphones, preferring to use the notebook's tinny speakers.

Another problem we found with the distribution is that the system initialisation files stored in the run level directories (beneath /etc/init.rc) have to be written in a particular format. You can't just dump your scripts into the appropriate run level directory. This could catch out even experienced users, who might apply the distribution as an upgrade to a previous installation.

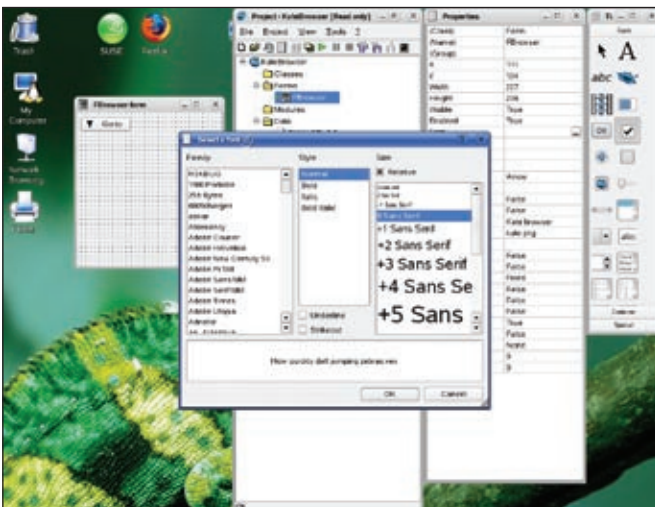
VERDICT

Despite the few minor problems encountered, the new SUSE distribution is a user-friendly introduction to Linux that also doubles as a fully specified distribution, including all the standard servers and some innovations such as Xen that look likely to become more interesting as they develop. Given that there are dozens of full Linux distributions, differentiating between them is an increasingly difficult task because all the major packages you need are, according to <http://distrowatch.org>, available in each. It's the extras that make a distribution worth having, and SUSE Linux 10 has them in spades.

SUSE Linux 10 scores highly for ease of installation and configuration by having the magnificent YaST tool at its disposal, and despite some annoyances it's a good distribution that sits well with Windows. Your existing partitions, though made smaller to accommodate SUSE, are still there and are easy to access from Linux via automatic mount points. Linux may not yet have the commercial games coverage available to Windows users, but a dual-boot system is more than adequate for this.

This distribution contains all the things that most people use regularly, along with some great examples of a wide array of more specialised applications. For sheer ease of use, it's a winner. It is definitely recommended for novice and experienced users alike, especially those who are determined to make the break from Microsoft.

If you want to try SUSE 10 before buying or downloading it, we have a version on this month's DVD edition. **CS**



◀ SUSE Linux 10 comes with integrated project support environments that include Gambas (pictured), Anjuta, Eclipse and Kdevelop